

ABSTRACT

The present invention optimizes the performance of integrated circuits by adjusting the circuit operating voltage using feedback on process/product parameters. To determine a desired value for the operating voltage of an integrated circuit, a
5 preferred embodiment provides for on-wafer probing of one or more reference circuit structures to measure at least one electrical or operational parameter of the one or more reference circuit structures; determining an adjusted value for the operating voltage based on the measured parameter; and establishing the adjusted value as the desired value for the operating voltage. The reference circuit structures may comprise process
10 control monitor structures or structures in other integrated circuits fabricated in the same production run. In an alternative embodiment, the one or more parameters are directly measured from the integrated circuit whose operating voltage is being adjusted